

# POTENZENWURZELNLOGARITHMEN

I	$2^3 \cdot 2^5 = 2^{3+5}$	$\log_{\blacksquare} 7 + \log_{\blacksquare} 2 = \log_{\blacksquare} (7 \cdot 2)$	
II	$\frac{5^7}{5^3} = 5^{7-3}$	$\log_{\blacksquare} 5 - \log_{\blacksquare} 3 = \log_{\blacksquare} \frac{5}{3}$	
III	$3^2 \cdot 5^2 = (3 \cdot 5)^2$	$\sqrt[\blacksquare]{2} \cdot \sqrt[\blacksquare]{5} = \sqrt[\blacksquare]{2 \cdot 5}$	
IV	$\frac{7^3}{2^3} = \left(\frac{7}{2}\right)^3$	$\frac{\sqrt[\blacksquare]{3}}{\sqrt[\blacksquare]{7}} = \sqrt[\blacksquare]{\frac{3}{7}}$	
V	$(2^5)^3 = 2^{5 \cdot 3}$	$\sqrt{\sqrt[\blacksquare]{3}} = \sqrt[2 \cdot \blacksquare]{3}$	$2 \cdot \log_{\blacksquare} 5 = \log_{\blacksquare} (5^2)$

$$7^1 = 7 \quad 7^0 = 1 \quad 5^{-1} = \frac{1}{5} \quad 3^{-2} = \frac{1}{3^2} \quad 7x^{-2} = \frac{7}{x^2} \quad \sqrt[3]{x} = x^{\frac{1}{3}} \quad \sqrt[2]{x} = \sqrt{x} = x^{\frac{1}{2}}$$

$$\log_7 7 = 1 \quad \log_{\blacksquare} 1 = 0 \quad \log_{\blacksquare} 0 \not\downarrow \quad \log_{\blacksquare} x = \log_{\blacksquare} (x) \quad \log_{10} x = \log x$$

bei  $\sqrt[\blacksquare]{\dots}$  kann  $\blacksquare$  durch jede reelle Zahl außer 0, bei  $\log_{\blacksquare} \dots$  durch jede positive reelle Zahl außer 1 ersetzt werden